

## **REMARKS**

Claims 28-54 are cancelled, claims 82-107 are new; thus, claims 1-27 and 55-107 are all the claims pending in the application. Claims 1-81 stand rejected on prior art grounds. Claims 1-54 stand rejected upon informalities. Applicants respectfully traverse these rejections based on the following discussion.

### **I. The 35 U.S.C. §112 Rejections**

Claims 1-27 stand rejected under 35 U.S.C. §112, second paragraph; and, claims 28-54 stand rejected under 35 U.S.C. §112, first paragraph. More specifically, the Office Action asserts that in “Claim 1, line 1 the word ‘incorporation of effects of ... risk factors’ is not clear. Incorporating to what?” (Office Action, p. 2, item 1). Applicants have amended claims 1 and 55 to replace “incorporation” with “consideration”.

Furthermore, the Office Action argues that there is insufficient antecedent basis for “said databases” in claim 1 because “maintaining one database is sufficient to satisfy the claim limitation” (Office Action, p. 2, item 1). Applicants have amended claims 1 and 55 to replace “said databases” with “said online databases”. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

### **II. The Prior Art Rejections**

Claims 1-81 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lange (U.S. Patent No. 6,321,212), in view of Hartman, et al. (“Online Databases: Information Available Electronically,” CPA Journal, Vol. 67, No. 4, April 1997, pp. 46-54), hereinafter

referred to as Hartman. Applicants respectfully traverse these rejections based on the following discussion.

The claimed invention provides a method, system, and computer program product for enabling online incorporation of the effects of uncertainty and risk factors while negotiating e-commerce transactions. In the rejection, the Office Action argues that the prior art of record discloses many features of the claimed invention. The Office Action argues that “Lange discloses premium to derivatives prices which is a cost added due to risk” (Office Action, p. 11, item 2). Nevertheless, Lange fails to disclose that such “cost” (i.e., the “derivative prices”) are determined “by using data corresponding to parameters of said transactions in conjunction with requirements of applicable market rules and information from said databases” (independent claims 1, 28, and 55). Instead, such “cost” are determined by the trader of the derivative product. Therefore, as explained in greater detail below, Applicants respectfully submit that the prior art of record does not teach or suggest the claimed invention.

First of all, the Office Action asserts that “Applicant argues about limitation not claimed, ‘database for currency exchange derivative’ is not claimed” (Office Action, p. 11, item 2). Applicants disagree and submit that independent claims 1, 55, and 82 define “maintaining an updated online database of currency exchange derivatives”.

Furthermore, Applicants traverse the rejections because the prior art of record fails to teach or suggest the claimed features of “determining costs associated with one or more risk elements by using data corresponding to parameters of said transactions in conjunction with requirements of applicable market rules and information from said databases”. Such features are defined in independent claims 1, 55, and 82 using identical language.

The Office Action argues that “Lange discloses premium to derivatives prices which is a cost added due to risk” (Office Action, p. 11, item 2). Nevertheless, Lange fails to disclose that such “cost” (i.e., the “derivative prices”) are determined “by using **data corresponding to parameters of said transactions** in conjunction with requirements of applicable **market rules** and **information from said databases**” (independent claims 1, 55, and 82). Instead, such “cost” are determined by the trader of the derivative product. More specifically, as described in column 3, paragraph 3, of Lange, the return to a trader of a traditional derivative product is, in most cases, largely determined by the value of the underlying security, asset, liability or claim on which the derivative is based. For example, the value of a call option on a stock, which gives the holder the right to buy the stock at some future date at a fixed strike price, varies directly with the price of the underlying stock. In the case of non-financial derivatives such as reinsurance contracts, the value of the reinsurance contract is affected by the loss experience on the underlying portfolio of insured claims. The prices of traditional derivative products are usually determined by supply and demand for the derivative based on the value of the underlying security (which is itself usually determined by supply and demand, or, as in the case of insurance, by events insured by the insurance or reinsurance contract).

Accordingly, Applicants submit that the “cost” (i.e., the “derivative prices”) in Lange are not determined by using data corresponding to parameters of the transactions in conjunction with requirements of applicable market rules and information from the databases”. Instead, such “cost” are determined by the trader of the derivative product. Therefore, it is Applicants’ position that the prior art of record fails to teach or suggest the claimed features of “determining costs associated with one or more risk elements by using data corresponding to parameters of

said transactions in conjunction with requirements of applicable market rules and information from said databases” as defined in independent claims 1, 55, and 82.

Applicants traverse the rejections because the cited references fail to teach or suggest maintaining an updated online database of currency exchange derivatives. Such a feature is defined in independent claims 1, 55, and 82 using the following language: “maintaining an updated online database of currency exchange derivatives associated with each activity involved in completing said transactions”.

The Office Action asserts that Lange discloses maintaining an updated online database of currency exchange derivatives (Office Action, top of p. 4, item (h) (citing Lange, col. 1 lines 34-56; col. 2 lines 20-51; col. 7 line 63 – col. 8 line 17; and, col. 92 line 23)). The portions of Lange that the Office Action cites as support for this contention provide an in-depth background discussion of electronic Internet-based trading of financial products, and more particularly, to online trading of securities, equities, bonds, and financial instrument derivatives (col. 1 lines 34-56 and col. 2 lines 20-51). The cited portions of Lange further provide a general teaching of derivative securities (col. 7 line 63 – col. 8 line 17) and a method of updating trader accounts to reflect payouts on financial returns (col. 92 line 23).

However, nothing within Lange, including the portions cited by the Office Action, discloses an updated online database that includes *currency exchange* derivatives. Such a feature is defined in independent claims 11, 55, and 82 using the following language: “maintaining ... an updated online database of currency exchange derivatives associated with each activity involved in completing said transactions”.

More specifically, as provided in paragraphs 0003 - 0005 of Applicants' disclosure, an electronic commerce transaction is faced with a number of uncertainties and risks, which are not adequately handled by the existing systems and methods for electronic commerce. These uncertainties and risks may originate from currency fluctuations. Fluctuating currency exchange rates become particularly important for trans-national commerce. When the two counterparties to an online negotiation have different currencies, the fluctuation of currencies exposes at least one of them to foreign exchange risk. This is a serious impediment in the successful internationalization of e-commerce. The prior art does not provide for a means by which the negotiation and matching process can itself take into account, the currency fluctuation effects and can effectively make use of the third party services (such as those providing contractable rates for present and future dates) for matching and price setting as well as for hedging.

Although the Office Action asserts that Lange discloses electronic databases, none of the databases disclosed in Lange include currency exchange derivatives. More specifically, as provided in column 90 lines 50-57 of Lange, the types of databases within the data storage devices 260 comprise: (1) Trader and Account databases 261; (2) Market Returns databases 262; (3) Market Data databases 263; (4) Event Data databases 264; (5) Risk databases 265; (6) Trade Blotter databases 266; and (7) Contingent Claims Terms and Conditions databases 267. The above-mentioned databases 260 – 267 do not include a currency exchange database. Applicants submit that nothing within Lange teaches or suggests that the data storage devices 260 can comprise a database including currency exchange derivatives.

Furthermore, the Office Action asserts that Lange discloses updating "trader accounts" (Lange, col. 92 line 23), wherein the trader accounts record interest paid to traders on open

demand-based adjustable return (DBAR) contingent claim balances and to debit trader balances for margin loan interest (Lange, col. 20 line 65 – col. 21 line 2). Moreover, the Office Action argues that Lange discloses updating a “trader’s credit rating” (Lange, col. 92 line 58). However, nothing within Lange, including the portions cited by the Office Action, teaches or suggests updating an online database of currency exchange derivatives. Rather, Lange only teaches updating records relating to payouts to traders and credit ratings of traders and not to currency exchange.

Therefore, Applicants submit that nothing within Lange, including the portions cited by the Office Action, teaches or suggests an updated database of currency exchange derivatives. Rather, the portions cited by the Office Action merely provide a generalized teaching of derivatives trading and derivative security. Moreover, Lange only teaches updating records relating to traders. Therefore, it is Applicants’ position that Lange fails to teach or suggest the claimed feature of “maintaining ... an updated online database of currency exchange derivatives associated with each activity involved in completing said transactions” as defined in independent claims 1, 55, and 82.

In addition, the Office Action argues that Lange discloses Asian and Bermudan options (Office Action, p. 11, para. 1 (citing Lange, col. 56, lines 21-22 and 26-32)). Nevertheless, Lange fails to teach or suggest maintaining an updated online database of the Asian and Bermudan options associated with each activity involved in completing one or more e-commerce transactions being negotiated.

In other words, information regarding the options is not maintained in a database. Instead, the options are merely provided as an example of a contingent claim upon which a

financial product is dependent upon (see Lange, col. 15, lines 42-44 “Examples of Groups of DBAR Contingent Claims”).

As discussed above, Lange discloses seven types of databases within the data storage devices 260. These databases include the Trader and Account databases 261, the Market Returns databases 262, the Market Data databases 263, the Event Data databases 264, the Risk databases 265, the Trade Blotter databases 266, and the Contingent Claims Terms and Conditions databases 267. However, Lange does not teach or suggest that any of the databases can include information regarding the Asian and/or Bermudan options.

The Office Action references FIG. 4 of Lange to assert that the databases 261-267 disclose a database of currency exchange derivatives (Office Action, p. 11, para. 1). However, nothing within FIG. 4 teaches or suggests that the databases 261-267 could include a database of currency exchange derivatives. The Office Action argues that the Market Data Database 263 comprises customized data information including prices, yields, index levels, and historical data (Office Action, p. 11, para. 1 (also citing Lange, col. 93, lines 25-43)). Nevertheless, such customized data has nothing to do with currency exchange.

Accordingly, Applicants submit that Lange fails to teach or suggest a database of currency exchange derivatives. **Information regarding the Asian and Bermudan options is not maintained in a database; rather, the options are merely provided as an example of a contingent claim upon which a financial product is dependent upon.** Therefore, it is Applicants’ position that Lange fails to teach or suggest the claimed feature of “maintaining ... an updated online database of currency exchange derivatives associated with each activity involved in completing said transactions” as defined by independent claims 1, 55, and 82.

Furthermore, Applicants submit that because Lange does not disclose a database of currency exchange derivatives, then Lange does not teach or suggest using information from such a database for determining costs associated with risk elements and for modifying data corresponding to parameters of transactions. Such features are defined in independent claims 1, 55, and 82 using similar language.

In addition, the Office Action argues that Lange discloses maintaining an online database of customized information related to risks at a given point of time for specified transactions (Office Action, p. 3, item (g)). In support for this contention, the Office Action references the “observation period” discussed in column 17 lines 32 – 36 and column 21 lines 53 – 56 of Lange.

The cited portions of Lange disclose that the observation period can be provided as a time period during which the contingent events are observed and the relevant outcomes determined for the purpose of allocating returns. Real-time market data may be provided to support frequent calculation of returns and to ascertain the outcomes during the observation periods.

However, the observation period does not determine information related to risks. Rather, Lange only discloses determining *outcomes* of events during the observation period “for the purpose of allocating returns”. As further provided in column 98 lines 43 – 45 of Lange, process 429 in FIG. 5 represents the observation period during which the outcome of the event underlying the contingent claim is observed. Applicants respectfully submit that Lange fails to teach or suggest determining information relating to *risks* during the observation period, because Lange only determines outcomes, not risks.



Furthermore, Applicants submit that the event outcomes determined during the observation period of Lange are not maintained in an online database. As discussed above, the Office Action asserts that Lange discloses electronic databases; however, nothing within Lange teaches a database of customized information related to risks at a given point of time for specified transactions. As provided in column 90 lines 50-57 of Lange, the types of databases within the data storage devices 260 comprise: (1) Trader and Account databases 261; (2) Market Returns databases 262; (3) Market Data databases 263; (4) Event Data databases 264; (5) Risk databases 265; (6) Trade Blotter databases 266; and (7) Contingent Claims Terms and Conditions databases 267. The above-mentioned databases 260 – 267 do not include a database of customized information related to risks at a given point of time for specified transactions. Applicants submit that nothing within Lange teaches or suggests that the data storage devices 260 can comprise a database including customized information related to risks at a given point of time for specified transactions.

Therefore, it is Applicants' position that Lange fails to teach or suggest the claimed feature of "maintaining ... an online database of customized information related to risks at a given point of time for specified transactions" as defined in independent claims 1, 55, and 82.

Applicants further traverse the rejections because the cited references fail to teach or suggest "determining costs associated with one or more risk elements by using data corresponding to parameters of said transactions in conjunction with requirements of applicable market rules and information from said databases" as defined by independent claims 1, 55, and 82.

The Office Action argues that such features are taught in column 2 lines 20-33 and column 6 lines 47-59 of Lange (Office Action, p. 3, item (i)). However, **the cited portions of Lange merely discuss a need for reducing costs; they does not teach or suggest determining such costs.**

Specifically, the cited portions of Lange broadly discuss that “Corporations, financial institutions, farmers, and even national governments and agencies are all active in the derivatives markets, typically to better manage asset and liability portfolios, hedge financial market risk, and minimize costs of capital funding” (col. 2 lines 24-28). The cited portions of Lange further provide that “The present invention is directed to systems and methods of trading, and financial products, having a goal of reducing transaction costs for market participants who hedge against or otherwise make investments in contingent claims relating to events of economic significance” (Lange, col. 6 lines 48-52).

However, nothing within Lange, including the portions cited by the Office Action, teaches or suggests determining costs associated with one or more risk elements by using data corresponding to parameters of said transactions in conjunction with requirements of applicable market rules and information from said databases (independent claims 1, 55, and 82).

In further support for its argument, the Office Action cites column 8 lines 17-28 and column 96 lines 8-37 of Lange. However, **the cited portions of Lange merely disclose determining the *return* of investment; they do not teach or suggest calculating the *cost* of the investment.**

More specifically, the cited portions disclose that “the function for computing and allocating *returns* to contingent claims is termed the Demand Reallocation Function (DRF)” (col.

8 lines 18-20 (emphasis added)). Moreover, the cited portions discuss that “an adjustable *return* based on variations in amounts invested is a key aspect of the invention” (col. 8 lines 24-25 (emphasis added)).

However, **nothing within Lange, including the portions cited by the Office Action, teaches or suggests calculating or otherwise determining costs associated with risk elements. Instead, Lange merely discusses a need for reducing costs and discloses determining the return of investment.** Therefore, Applicants submit that Lange fails to teach or suggest the claimed feature of “determining costs associated with one or more risk elements by using data corresponding to parameters of said transactions in conjunction with requirements of applicable market rules and information from said databases” as defined by independent claims 1, 55, and 82.

The Office Action argues that Lange discloses “modifying said data corresponding to said parameters of said transactions by using said information from said databases” as defined by independent claims 1, 55, and 82. In support for this contention, the Office Action references column 92 lines 22-23 and 48-53 of Lange. Such portions discuss updating trader accounts (col. 92, lines 22-23) and storing data in one or more storage devices, databases, etc. (col. 92, lines 48-53).

However, updating trader accounts does not modify data corresponding to parameters of the transactions. Instead, the trader accounts record interest paid to traders on open demand-based adjustable return (DBAR) contingent claim balances and to debit trader balances for margin loan interest (Lange, col. 20 line 65 – col. 21 line 2). Therefore, updating trader accounts does not modify data corresponding to parameters of the transactions; rather, it merely updates

records of interest paid to traders and debit trader balances (which is not data corresponding to transaction parameters).

Accordingly, Applicants submit that **Lange does not disclose modifying data corresponding to parameters of the transactions. Instead, Lange merely discusses updating trader accounts and storing data in storage devices.** Therefore, it is Applicants' position that Lange fails to teach or suggest the claimed feature of "modifying said data corresponding to said parameters of said transactions by using said information from said databases" as defined by independent claims 1, 55, and 82.

The Office Action argues that Lange discloses selecting a winning bid based on risk. In support for this contention, the Office Action cites Lange (col. 58 line 47 – col. 59 line 5; col. 4 line 57 – col. 5 line 61; col. 6 line 47 – col. 7 line 18; and, col. 33 lines 14-15). However, nothing within Lange, including the portions cited by the Office Action, **teaches or suggests selecting a winning bid based on risk. Instead, the cited portions of Lange only disclose preparing a bid based on risk.**

Specifically, column 58 lines 47 – column 59 line 5 of Lange discloses that firms involved in competitive bidding for goods or services, whether by sealed bid or open bid auctions, can hedge their investments and other capital expended in *preparing the bid* by investing in states of a group of DBAR contingent claims comprising ranges of mutually exclusive and collectively exhaustive auction bids. In this way, the group of DBAR contingent claim serves as a kind of "meta-auction," and allows those who will be participating in the auction to invest in the distribution of possible auction outcomes, rather than simply waiting for the single outcome representing the auction result. Auction participants could thus hedge

themselves against adverse auction developments and outcomes, and, importantly, have access to the entire probability distribution of bids (at least at one point in time) *before submitting a bid into the real auction*. Thus, a group of DBAR claims could be used to provide market data over the entire distribution of possible bids. Preferred embodiments of the present invention thus can help avoid the so-called Winner's Curse phenomenon known to economists, whereby auction participants fail rationally to take account of the information on the likely bids of their auction competitors.

Therefore, **the cited portions of Lange merely disclose considering risk factors in preparing a bid to be submitted in an auction. Nothing within Lange discloses considering risk factors to determine a winning bid.** Accordingly, Applicants submit that Lange fails to teach or suggest the claimed feature "wherein a winning bid for desired goods or services in an online auction is selected on a basis of highest risk-adjusted payout to said seller" as defined by dependent claims 13, 40, and 67. Additionally, that Lange fails to teach or suggest the claimed feature " wherein a winning offer for desired goods or service in an online reverse auction is selected on a basis of least risk adjusted cost to said buyer" as defined by dependent claims 14, 41, and 68.

The Office Action asserts that the features of "reducing costs" and "updating traders accounts and storing data in storage devices", "are not recited in the rejected claim(s)" (Office Action, p. 10, para. 3 (citing p. 22 of Applicants' Amendment filed on December 4, 2006 (hereinafter referred to as "Applicants' Amendment))). More specifically, the Office Action asserts that "[i]n response to applicant's argument that the references fail to show certain features

of applicant's invention, it is noted that the features upon which applicant relies (i.e., Claim) are not recited in the rejected claims(s)" (Office Action, p. 10, para. 3).

Contrary to such an assertion, Applicants' Amendment does not argue that the features of "reducing costs" and "updating traders accounts and storing data in storage devices" are *not* taught by Lange. Rather, Applicants' Amendment argues that such features *are* taught by Lange. More specifically, as provided on page 22 of Applicants' Amendment "Lange merely discusses a need for reducing costs"; and, "Lange merely discusses updating traders accounts and storing data in storage devices". Therefore, contrary to position taken in the Office Action, Applicants' Amendment does not argue that the cited references fail to show any features that are not recited Applicants' claims.

Applicants submit that Hartman is introduced for the mere purpose of teaching an online database. The Office Action does not reference Hartman to reject any other features of the claimed invention. More specifically, as noted on the middle of page 4, the Office Action states that "Lange does not explicitly disclose an online database. However, Hartman discloses online database".

Nevertheless, as more fully described above, the prior art of record fails to teach or suggest the claimed features of an updated online database *of currency exchange derivatives* (independent claims 1, 55, and 82). Furthermore, the cited prior art does not teach or suggest *determining costs associated with risk elements or modifying the data corresponding to the parameters of the transactions* (independent claims 1, 55, and 82).

Therefore, it is Applicants' position that the prior art of record does not teach or suggest many features defined by independent claims 1, 55, and 82 and that such claims are patentable

over the prior art of record. Further, it is Applicants' position that dependent claims 2-27 and 56-81, and 83-107 are similarly patentable, not only because of their dependency from a patentable independent claims, but also because of the additional features of the invention they defined. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections.

## **II. Formal Matters and Conclusion**

In view of the foregoing, Applicants submit that claims 1-27 and 55-107, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary. Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0441.

Respectfully submitted,

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